

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:

a heating member which includes a conductive member containing a coil for, when supplied with a voltage and current of a specific frequency, producing a magnetic field of a specific magnetic field intensity and generating heat by the magnetic field supplied from the coil;

10 a magnetic field attenuating mechanism (shield plate 202) which is capable of attenuating the magnetic field intensity of the magnetic field passing through the mechanism; and

15 at least one magnetic field attenuating mechanism unit which is provided between a specific magnetic field intensity measuring point and the coil.
2. The image forming apparatus according to claim 1, wherein if the magnetic field attenuating mechanism has a thickness of h_1 and includes a material whose skin depth is δ_1 and the conductive member has a thickness of h_2 and includes a material whose skin depth is δ_2 , the following expression holds:
$$\frac{h_1}{\delta_1} + \frac{h_2}{\delta_2} \geq 5$$
3. The image forming apparatus according to claim 2, wherein the skin depths δ_1 and δ_2 are determined according to the frequency of the power supplied to the coil to generate a magnetic field of

the highest magnetic field intensity.

4. The image forming apparatus according to
claim 1, wherein if the magnetic field attenuating
mechanism has a thickness of h_1 and includes a material
5 whose skin depth is δ_1 , the following expression holds:

$$\frac{h_1}{\delta_1} \geq 5$$

5. The image forming apparatus according to
claim 4, wherein the skin depth δ_1 is determined
according to the frequency of the power supplied to the
10 coil to generate a magnetic field of the highest
magnetic field intensity.

6. The image forming apparatus according to
claim 1, wherein the magnetic field attenuating
mechanism is made of aluminum or an aluminum alloy and
15 has a thickness of 0.1 mm or more.

7. The image forming apparatus according to
claim 1, wherein the distance between the magnetic
field attenuating mechanism and the coil is 80 mm or
less.

20 8. An image forming apparatus comprising:
a heating member which includes a conductive
member having on its outside a coil for, when supplied
with a voltage and current of a specific frequency,
producing a magnetic field of a specific magnetic field
25 intensity and generating heat by the magnetic field
supplied from the coil;

a magnetic field attenuating mechanism (shield plate 202) which is capable of attenuating the magnetic field intensity of the magnetic field passing through the mechanism; and

5 at least one unit of the magnetic field attenuating mechanism which is provided between a specific magnetic field intensity measuring point and the coil.

9. The image forming apparatus according to
10 claim 8, wherein if the magnetic field intensity attenuating mechanism has a thickness of h_1 and includes a material whose skin depth is δ_1 and the conductive member has a thickness of h_2 and includes a material whose skin depth is δ_2 , the following
15 expression holds:

$$\frac{h_1}{\delta_1} + \frac{h_2}{\delta_2} \geq 5$$

10. The image forming apparatus according to
claim 9, wherein the skin depths δ_1 and δ_2 are determined according to the frequency of the power
20 supplied to the coil to generate a magnetic field of the highest magnetic field intensity.

11. The image forming apparatus according to
claim 8, wherein if the magnetic field attenuating mechanism has a thickness of h_1 and includes a material
25 whose skin depth is δ_1 , the following expression holds:

$$\frac{h_1}{\delta_1} \geq 5$$

12. The image forming apparatus according to
claim 11, wherein the skin depth δ_1 is determined
according to the frequency of the power supplied to the
coil to generate a magnetic field of the highest
magnetic field intensity.

5 13. The image forming apparatus according to
claim 8, wherein the magnetic field attenuating
mechanism is made of aluminum or an aluminum alloy and
has a thickness of 0.1 mm or more.

10 14. The image forming apparatus according to
claim 8, wherein the distance between the magnetic
field attenuating mechanism and the coil is 80 mm or
less.